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EXAMINER

VALENTI, ANDREA M

ART UNIT

PAPER NUMBER

3643

DATE MAILED: 03/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/738,766

Applicant(s)

PELTON, NORMAN R.

Examiner

Andrea M. Valenti

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 12-14 and 20-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12-14 and 20-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Claim Objections

Claims 26-29 are objected to because of the following informalities:

The numbering of the claims starting with claim 26 is improper. Applicant has provided two claims numbered 26. Also, claims numbered 27-29 are identical duplicate claims that depend from the same independent claim with the same subject matter. These claims should be deleted or amended.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-10, 12-14, and 20-29 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The amendment to claims 1, 3, 6, 8, 9, and 26-29 including the age of 6.5 months or less is new matter that is not supported in the specification. No where in the specification does applicant specify this age or the criticality of this specific age.

Claims 2, 4, 5, 7, 10, 12-14, and 20-25 are rejected as being dependent from a rejected base claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 26 rejected under 35 U.S.C. 103(a) as being unpatentable over Van der Knaap B.V. Fibre Neth and Substrate Research for Roses: Evaluation of Different Types of Coir, Verbondsnieuws vol. 43 (20): English abstract, Dutch 1999, one page, in view of U.S. Patent No. 3,990,180 to Bunting and U.S. Patent No. 4,333,265 to Arnold.

Regarding Claims 1 and 26, Van der Knaap's trademark product Fibre Neth teaches a network of thermal-sensitive fibre used as a plant growing medium. Van der Knaap's does not explicitly state a cylindrical plug of growing medium including a tree seedling with roots. However, Bunting teaches that it is old and notoriously well-known in the art to provide trees and young plants with a plant substrate plug medium (Bunting Col. 1 line 5-13) and inherently teaches a coniferous tree. It would have been obvious to one of ordinary skill in the art to shape the growing medium of Van der Knaap's into a seedling plug since the modification is merely the selection of a known material for intended use selected for its known hydration characteristics. Van der Knaap is silent on how the plug is manufactured. However, Bunting teaches that it is old and notoriously well-known in the art to manufacture plugs using thermal heat-treatment for its

polymerization effects (Bunting Col. 2 line 40-55 and claim 9). It would have been obvious to one of ordinary skill in the art to modify the teachings of Van der Knaap since the modification is merely the selection of a known manufacturing procedure selected for desired known polymerization end results to enhance root expansion through the plug.

Van der Knaap as modified is silent on the age of the seedling being 6.5 months or less. However, Arnold teaches that it is accepted wisdom in the field that seedlings under conventional methods reach an acceptable size at 6 months (Arnold. Col. 10 line 8). It would have been obvious to one of ordinary skill in the art to modify the teachings at the time of the invention with the accepted conventional time frame for planting to achieve a desired survival rate.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Van der Knaap B.V. Fibre Neth and Substrate Research for Roses: Evaluation of Different Types of Coir, as applied to claim 1 above, and further in view of U.S. Patent No. 5,942,029 to Spittle.

Regarding Claim 2, Van der Knaap teaches that the growing medium Fibre Neth has a loose growing soil mixture consisting of coconut coir and thermal-sensitive fibre, but is silent on the percentage by weight of each component. However, Spittle teaches a plant mulch mixture consisting of approximately 95% by weight natural fiber (i.e. coconut coir fibre) and 5% by weight of crimped synthetic fibers (i.e. thermal-sensitive fibre) (Spittle Col. 2 line 22-37). It would have been obvious to one of ordinary skill in

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the art to apply the teachings of Spittle to the production of Fibre Neth in order to provide long-lasting even hydration of the seed and seedling to maximize germination and plant growth rate as taught by Spittle (Spittle Col. 2 lines 43-52).

Claims 3, 5, 20 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van der Knaap B.V. Fibre Neth and Substrate Research for Roses: Evaluation of Different Types of Coir, as applied to claim 1 above, and further in view of U.S. Patent No. 5,331,908 to Loeb.

Regarding Claims 3, 5, and 26, Van der Knaap's trademark product Fibre Neth teaches a cylindrical plug of growing medium, which is a network of thermal-sensitive fibre and inherently includes a tree seedling with roots, but is silent on a second plug surrounding the first plug. However, Loeb teaches a second cylindrical plug of a second growing medium surrounding the first cylindrical plug (Loeb Col. 4 line 5-10) Fig. 1 #16 and Fig. 2 #17) and the second growing medium has a loose growing soil mixture of peat moss and sawdust (Loeb Col. 1 line 44-48). It would have been obvious to one of ordinary skill in the art to transplant the plug of Van der Knaap's into a second plug as taught by Loeb since it is old and well-known method in the art of plant propagation to increase the size of the root containment area as the seedling grows and also to provide additional nutrient properties and protection to the plant root system.

Regarding Claim 20, Van der Knaap B.V. as modified is silent on the second plug having thermal-sensitive fibre. However, it would have been obvious to one of ordinary

skill in the art to modify the teaching since the modification is merely duplicating the growing medium selection and does not present a patentably distinct limitation.

Claims 4, 7, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van der Knaap B.V. Fibre Neth as applied to claim 3, 5, and 20 above, and further in view of U.S. Patent No. 5,942,029 to Spittle.

Regarding Claims 4, 7, and 21, Van der Knaap as modified teaches that the growing medium Fibre Neth has a loose growing soil mixture consisting of coconut coir and thermal-sensitive fibre, but is silent on the percentage by weight of each component. However, Spittle teaches a plant mulch mixture consisting of approximately 95% by weight natural fiber (i.e. coconut coir fibre) and 5% by weight of crimped synthetic fibers (i.e. thermal-sensitive fibre) (Spittle Col. 2 line 22-37). It would have been obvious to one of ordinary skill in the art to apply the teachings of Spittle to the production of Fibre Neth in order to obtain the required absorbent properties for the growing medium to provide long-lasting even hydration of the seed and seedling to maximize germination and plant growth rate as taught by Spittle (Spittle Col. 2 lines 43-52).

Claims 6 and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van der Knaap B.V. Fibre Neth and Substrate Research for Roses: Evaluation of Different Types of Coir, Verbodsnieuws vol. 43 (20): English abstract, Dutch 1999, one

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page as applied to claim 1 above, and further in view of U.S. Patent Des. 325,714 to Karhiniemi.

Regarding Claims 6 and 27-29, Van der Knaap as modified is silent on a hollow cell. However, Karhiniemi teaches a tray for growing seedlings in which the application of the tray inherently performs the conventional method of forming a seedling plug by filling a hollow cell with a growing medium planting a tree seed in the hollow cell; germinating the seed into a seedling and nurturing the seedling to provide root development; after sufficient root development the of the seedling, ejecting the seedling and growing medium to form a plug (Karhiniemi Fig. 1-5). It would have been obvious to one of ordinary skill in the art to modify the teachings of Van der Knaap with the teachings of Karhiniemi as an ergonomically efficient means of transporting multiple plugs at one time.

Claims 8, 9, 12-14, and 22-25, are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Des. 325,714 to Karhiniemi as applied to claim 6 above, and further in view of U.S. Patent No. 5,331,908 to Loeb.

Regarding Claims 8 and 9, Karhiniemi as modified is silent on transplanting the first cylindrical plug into a hollow cell with a growing medium wherein the growing medium has a network of thermal-sensitive fibre; after sufficient root development of the seedling, ejecting the seedling and growing medium to form the seedling plug. However, Loeb teaches that method of transplanting a first plug into a second plug (Loeb Col. 4). It would have been obvious to one of ordinary skill in the art to modify the

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conventional plug method applicable to Karhiniemi to include a second plug layer of thermal-sensitive fibre since this modification is merely a duplication of steps that perform the same intended function of promoting the growth and development of the seedling. It is old and well-known in the art of plant propagation to increase the size of the root containment area as the seedling grows and also to provide additional nutrient properties and protection to the plant root system.

Regarding Claim 12, Karhiniemi as modified by Loeb teaches that the second growing medium can also be a loose growing soil mixture of peat moss and sawdust (Loeb Col. 1 line 45-48).

Regarding Claims 13, 22, and 24, Karhiniemi as modified teaches the growing medium has a network of Fibre-neth formed by filling a tray of hollow cells with the growing medium, but is silent on dipping the tray in a bath of hot water at a temperature of approximately 89 degrees Celsius, and then dipping the tray in a bath of water at tap water temperature, 5 to 10 degrees Celsius. However, it would have been obvious to one of ordinary skill in the art to dip the growing medium in hot water, approximately 89 degrees Celsius, since heat treatment is an old and well-known means to kill unwanted bacteria and micro-organisms and cooling the tray with tap water brings the soil temperature back to a level favorable for growing conditions.

Regarding Claims 14, 23, and 25, Karhiniemi as modified is silent on alternatively cascading water onto the tray to heat and cool the growing medium. However, it would have been obvious to one of ordinary skill in the art to apply cascading water to the

growing seedlings since is an old and well-known method of humidity control in plant husbandry.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Van der Knaap B.V. Fibre Neth as applied to claim 8 above, and further in view of U.S. Patent No. 5,942,029 to Spittle.

Regarding Claim 10, Van der Knaap as modified teaches that the growing medium Fibre Neth has a loose growing soil mixture consisting of coconut coir and thermal-sensitive fibre, but is silent on the percentage by weight of each component. However, Spittle teaches a plant mulch mixture consisting of approximately 95% by weight natural fiber (i.e. coconut coir fibre) and 5% by weight of crimped synthetic fibers (i.e. thermal-sensitive fibre) (Spittle Col. 2 line 22-37). It would have been obvious to one of ordinary skill in the art to apply the teachings of Spittle to the production of Fibre Neth in order to provide long-lasting even hydration of the seed and seedling to maximize germination and plant growth rate as taught by Spittle (Spittle Col. 2 lines 43-52).

Response to Arguments

Applicant's arguments with respect to claims 1-10, 12-14, and 20-29 have been considered but are moot in view of the new ground(s) of rejection.

Examiner maintains that applicant's claim language does not patentably distinguish over the teachings of the cited prior art. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed

invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). In other words, examiner has presented that the prior art of record teaches applicants structural limitations and methods. Merely selecting a desirable time frame for planting is an obvious modification derived through routine tests and experimentation to increase the efficiency of the system while maintain survivability or at different ages the seedling might be ejected to add certain fertilizers/nutrients.

Applicant argues that the cited prior art teaches an acceptable age of 7 months; however, applicant did not specifically identify where this is explicitly taught in the prior art.

Applicant's wording for the amendments, especially for claim 1 and 3, is very broad in nature. The amended claim language does not specify where the seedling is being re-planted at 6.5 months or less. Is it in another pot, is out in a field, is it in another plug? Also, applicant has merely stated it is **suitable** for replanting, but does not positively claim that at that specific point it is re-planted and again where is it being re-planted to. It is very old and well-known to re-plant seedlings during various stages of development into different size containers. So an art that teaches a **young** seedling in a plug being re-planted inherently teaches applicant's acceptable age since **young** can encompass 6.5 months or less. Regarding claim 6, where is it being ejected from?

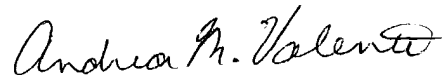
Is it merely being ejected from a tray, a greenhouse, from an airplane, from the cell, etc?

Conclusion

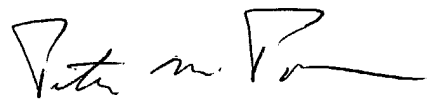
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrea M. Valenti whose telephone number is 703-305-3010. The examiner can normally be reached on 7:30am-5pm M-F; Alternating Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter M. Poon can be reached on 703-308-2574. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Andrea M. Valenti
Examiner
Art Unit 3643

15 March 2004


Peter M. Poon
Supervisory Patent Examiner
Technology Center 3600

3/24/04